

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF DELAWARE**

<b>IN THE MATTER OF THE</b>	)	
<b>APPLICATION DELMARVA POWER &amp;</b>	)	
<b>LIGHT COMPANY FOR APPROVAL OF</b>	)	
<b>MODIFICATION</b>	)	<b>PSC DOCKET NO. 12-419F</b>
<b>TO ITS GAS COST RATES</b>	)	
<b>(FILED AUGUST 31, 2012)</b>	)	

**DIRECT TESTIMONY OF**  
**JEROME D. MIERZWA**  
**ON BEHALF OF THE STAFF OF THE**  
**DELAWARE PUBLIC SERVICE COMMISSION**

**PUBLIC VERSION**

**MARCH 6, 2013**

DELMARVA POWER & LIGHT COMPANY  
DOCKET NO. 12-419F  
TESTIMONY OF JEROME D. MIERZWA

TABLE OF CONTENTS

	<u>PAGE</u>
I. STATEMENT OF QUALIFICATIONS .....	1
II. SCOPE AND PURPOSE OF TESTIMONY.....	2
III. SUMMARY OF CONCLUSIONS.....	3
IV. LOST AND UNACCOUNTED-FOR GAS .....	4
V. CAPACITY PLANNING AND MANAGEMENT.....	8

1 **I. STATEMENT OF QUALIFICATIONS**

2 **Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS**  
3 **ADDRESS?**

4 A. My name is Jerome D. Mierzwa. I am a principal and Vice President of Exeter  
5 Associates, Inc. ("Exeter"). My business address is 10480 Little Patuxent Parkway,  
6 Suite 300, Columbia, Maryland 21044. Exeter specializes in providing public utility-  
7 related consulting services.

8 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**  
9 **EXPERIENCE.**

10 A. I graduated from Canisius College in Buffalo, New York, in 1981 with a Bachelor of  
11 Science Degree in Marketing. In 1985, I received a Masters Degree in Business  
12 Administration with a concentration in finance, also from Canisius College. In July 1986, I  
13 joined National Fuel Gas Distribution Corporation ("NFG Distribution") as a  
14 Management Trainee in the Research and Statistical Services Department ("RSS"). I  
15 was promoted to Supervisor RSS in January 1987. While employed with NFG  
16 Distribution, I conducted various financial and statistical analyses related to the  
17 company's market research activity and state regulatory affairs. In April 1987, as  
18 part of a corporate reorganization, I was transferred to National Fuel Gas Supply  
19 Corporation's ("NFG Supply") rate department where my responsibilities included  
20 utility cost of service and rate design analysis, expense and revenue requirement  
21 forecasting and activities related to federal regulation. I was also responsible for  
22 preparing NFG Supply's Purchase Gas Adjustment ("PGA") filings and developing  
23 interstate pipeline and spot market supply gas price projections. These forecasts were  
24 utilized for internal planning purposes as well as in NFG Distribution's 1307(f)  
25 proceedings.

1 In April 1990, I accepted a position as a Utility Analyst with Exeter. In  
2 December 1992, I was promoted to Senior Regulatory Analyst. Effective  
3 April 1, 1996, I became a principal of Exeter. Since joining Exeter, my assignments  
4 have included evaluating the gas purchasing practices and policies of natural gas  
5 utilities, utility class cost of service and rate design analysis, sales and rate  
6 forecasting, performance-based incentive regulation, revenue requirement analysis,  
7 the unbundling of utility services and the evaluation of customer choice natural gas  
8 transportation programs.

9 **Q. HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY**  
10 **PROCEEDINGS ON UTILITY RATES?**

11 A. Yes. I have provided testimony on more than 100 occasions in proceedings before  
12 the Federal Energy Regulatory Commission (“FERC”), utility regulatory  
13 commissions in Georgia, Illinois, Indiana, Louisiana, Maine, Montana, Nevada, New  
14 Jersey, Ohio, Pennsylvania, Rhode Island, Texas and Virginia, as well as before this  
15 Commission.

16  
17 **II. SCOPE AND PURPOSE OF TESTIMONY**

18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
19 **PROCEEDING?**

20 A. Exeter was retained by the Staff of the Public Service Commission (“Commission”)  
21 to review the Gas Cost Rate (“GCR”) application of Delmarva Power & Light  
22 Company (“Delmarva” or “Company”) and evaluate the reasonableness of its gas  
23 procurement practices and policies. The purpose of my testimony is to present  
24 findings and recommendations to the Commission concerning issues raised by the  
25 application and the Company’s ongoing gas procurement policies and practices. Also

1           testifying in this proceeding on behalf of the Staff is Malika Davis. Ms. Davis  
2           summarizes the Company's application and proposed rates, and addresses the  
3           Settlement agreement in Docket No. 11-381F, Delmarva's interstate pipeline charges,  
4           and off-system sales and capacity release activities.

5       **Q.                   IN PERFORMING YOUR REVIEW AND ANALYSIS, WHAT DATA**  
6                               **SOURCES DID YOU UTILIZE?**

7       A.       I reviewed the Company's application, responses to discovery requests, and  
8           information provided during informal discovery. I also reviewed information  
9           provided in other Company proceedings before the Commission.

10      **Q.                   WAS THIS TESTIMONY PREPARED BY YOU OR UNDER YOUR**  
11                               **DIRECT SUPERVISION?**

12      A.       Yes, I prepared this testimony.

13

14      **III. SUMMARY OF CONCLUSIONS**

15      **Q.                   PLEASE SUMMARIZE YOUR FINDINGS AND**  
16                               **RECOMMENDATIONS.**

17      A.       My findings and recommendations are as follows:

18

- 19                   •       During the period [XXXXXXXXXXXXXXXXXXXX], the lost and  
20                               unaccounted-for gas ("LAUF") costs associated with serving a large  
21                               volume gas transportation customer ("LG Customer") were improperly  
22                               charged to GCR customers. In this proceeding, Delmarva's Deferred  
23                               Fuel Balance should be adjusted for the period [XXXXXXX]  
24                               through [XXXXXXX] on a monthly basis to reflect the Company's  
25                               current estimate of the improperly charged costs. Delmarva is  
26                               continuing to investigate this issue and is currently negotiating with  
27                               the LG Customer to recover the LAUF costs improperly charged to  
28                               GCR customers. Because these negotiations are unlikely to be  
29                               concluded before the end of this proceeding, the Company should brief  
30                               Staff and the DPA on the status of negotiations as they occur. Once  
31                               the actual LAUF costs are known, the Deferred Fuel Balance should  
32                               be trued-up and Delmarva should file a report with the Commission

1 identifying the findings of its investigation and the results of its  
2 negotiations with the LG Customer. That report should also address  
3 whether GCR customers were improperly assessed LAUF costs prior  
4 to [XXXXXX XXXX], including the period during which the LG  
5 Customer's facilities were previously owned by Delmarva.

- 6 • Delmarva will be reducing its interstate pipeline capacity by  
7 7,290 Mcf prior to the 2014-2015 winter season. This will reduce  
8 Delmarva's design peak day reserve margin to 6.61 percent. In  
9 previous GCR proceedings, Staff has generally maintained that  
10 Delmarva's reserve margin should be limited to 5 percent. Given the  
11 predictive capabilities of the Company's design peak day forecasting  
12 model and the current usage characteristics of the Company's firm  
13 sales customers which I discuss in my testimony, the additional  
14 1.61 percent reserve margin in excess of 5 percent does not appear to  
15 be unreasonable.

#### 16 **IV. LOST AND UNACCOUNTED-FOR GAS**

##### 17 **Q. WHAT IS LOST AND UNACCOUNTED-FOR GAS?**

18 A. Lost and unaccounted-for gas ("LAUF") is the difference between the measured  
19 volume of total gas supply delivered to a gas utility's distribution system, and the  
20 measured volume of gas disposition. Gas disposition includes both gas billed to  
21 customers and company use. There are a variety of reasons why some gas is  
22 unaccounted for. Some LAUF is due to problems in the measurement of gas supply  
23 and disposition. The volume of a given quantity (i.e., weight or heating value) of  
24 natural gas depends upon temperature and pressure conditions, and these may vary.  
25 Another measurement factor which can affect LAUF is cycle billing, which causes a  
26 mismatch between the timing of gas supply measurements and recorded gas sales  
27 volumes. A final measurement factor is meter inaccuracies. In addition to these  
28 measurement problems, some gas is lost through leakage in pipelines and other  
29 facilities, and through meter tampering or other kinds of theft.

##### 30 **Q. HOW ARE THE COSTS ASSOCIATED WITH LAUF RECOVERED?**

1 A. Delmarva's GCR commodity charge is determined by dividing the cost of all volumes  
2 purchased to serve GCR customers by the volume of gas sold to GCR customers.  
3 Therefore, for sales customers, LAUF costs are recovered through GCR commodity  
4 charges. For transportation customers, LAUF is recovered through a retainage charge  
5 which is set based on Delmarva's actual LAUF experience. Delmarva's most recent  
6 LAUF experience is 3 percent and the current retainage charge is 3 percent. If the  
7 retainage charge is 3 percent and if a transportation customer expects to consume  
8 1,000 Mcf, the customer must deliver 1,031 Mcf to Delmarva ( $1,000 / (1-.03)$ ). The  
9 31 Mcf difference between deliveries and consumption would be retained by  
10 Delmarva as compensation for LAUF.

11 **Q. IS THERE AN ISSUE IN THIS PROCEEDING WITH RESPECT TO**  
12 **LAUF AND THE RETAINAGE FACTORS CHARGED TO**  
13 **TRANSPORTATION CUSTOMERS?**

14 A. Yes. As explained in greater detail in the testimony of Delmarva's witness Robert W.  
15 Brielmaier (pages 5-9), due to meter inaccuracies LAUF was incurred in conjunction  
16 with serving a large volume gas transportation customer ("LG Customer") during the  
17 period [XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX]; however, the  
18 LG Customer was not assessed a retainage charge to recover LAUF costs during this  
19 period. As a result, LAUF costs associated with serving the LG Customer were  
20 recovered from GCR sales customers. I would note that the gas consuming facilities  
21 of the LG Customer were previously owned by Delmarva.

22 **Q. SHOULD THE LAUF COSTS ASSOCIATED WITH SERVING THE**  
23 **LG CUSTOMER HAVE BEEN RECOVERED FROM GCR**  
24 **CUSTOMERS?**

1 A. No. The LAUF costs associated with serving the LG Customer should not be  
2 recovered from GCR customers. These LAUF costs were not incurred in conjunction  
3 with serving GCR customers and should have been recovered from the LG Customer.  
4 The Company agrees with this position.

5 **Q. WHAT HAS THE COMPANY PROPOSED IN ITS APPLICATION**  
6 **WITH RESPECT TO THE LAUF COSTS ASSOCIATED WITH**  
7 **SERVING THE LG CUSTOMER?**

8 A. The Company estimates the unrecovered LAUF costs associated with serving the LG  
9 Customer to be [XXXXXXXX]. However, the Company's technical analysis of the  
10 issue is not yet complete. Delmarva intends to collect the unrecovered LAUF costs  
11 from the LG Customer, and pass on the amounts recovered to GCR customers  
12 through an adjustment to the Deferred Fuel Balance. Discussions and negotiations  
13 with the LG Customer to recover these costs are in the early stages. In its application,  
14 Delmarva has reduced the Deferred Fuel Balance by \$2,000,000, which is [xx]  
15 percent of Delmarva's estimate of the LG Customer's LAUF costs. Delmarva intends  
16 to true-up with interest the Deferred Fuel Balance in subsequent GCR filings to  
17 reflect the final amounts determined for LAUF related to the LG Customer.

18 **Q. WHAT DO YOU RECOMMEND WITH RESPECT TO HOW THE LG**  
19 **CUSTOMER LAUF ISSUE SHOULD BE ADDRESSED IN THIS**  
20 **PROCEEDING?**

21 A. At this time, the Deferred Fuel Balance should be adjusted for the period [XXXXXX  
22 XXXXXXXXXXXXXXXXXXXXXXXX] on a monthly basis to reflect Delmarva's current  
23 estimate of the unrecovered LAUF costs associated with serving the LG Customer.  
24 Because this matter is unlikely to be resolved before the conclusion of this  
25 proceeding, the Company should brief Staff and the DPA on the status of negotiations



1 with the LG Customer as they occur. Upon conclusion of Delmarva's technical  
2 analysis, the amount credited to GCR customers should be trued-up to reflect the  
3 actual LAUF costs incurred by GCR customers in conjunction with serving the LG  
4 Customer, regardless of the outcome of Delmarva's negotiations with the LG  
5 Customer. Delmarva should file a report with the Commission, identify the results of  
6 its technical analysis and negotiations with the LG Customer. That report should also  
7 address whether GCR customers were improperly assessed LAUF costs prior to  
8 [XXXXXXXXXX], including the period during which the LGC Customer's facilities  
9 were previously owned by Delmarva.

10 **Q. DID YOU INQUIRE AS TO WHY [XXXXXXXXXX] WAS THE**  
11 **APPROPRIATE STARTING POINT FOR THE LG CUSTOMER**  
12 **LAUF COST CALCULATION?**

13 A. Yes. Discovery request PSC 2-11 inquired as to why [XXXXXXXXXX] was the  
14 appropriate starting point for the LG Customer LAUF cost calculation. The  
15 Company's response provide little justification for the [XXXXXXXXXXXXX] start date :

16  
17 [XXX  
18 XX  
19 XX  
20 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX]

21 **Q. IS DELMARVA PROPOSING TO INCREASE THE LAUF FACTOR**  
22 **APPLIED TO GCR CUSTOMERS IN THIS PROCEEDING?**

23 A. Yes. Delmarva is proposing to increase the LAUF factor applied to GCR customers  
24 from 2 to 3 percent. Delmarva has similarly increased the retainage charge to all  
25 other (non-LG Customer) transportation customers to 3 percent.

26 **Q. WHY IS DELMARVA PROPOSING TO INCREASE THE GCR**  
27 **CUSTOMER LAUF FACTOR?**

1 A. As explained by witness Brielmaier (page 5), the loss factor has been increased due to  
2 the adoption of a revised methodology for determining GCR customer LAUF. The  
3 previous methodology included the volumes of the LG Customer. Under the new  
4 methodology, LG Customer volumes are excluded, and the LG Customer will be  
5 billed for LAUF based on the actual LAUF associated with serving this customer.

6 **Q. BASED ON YOUR EXPERIENCE IN OTHER GCR CASES, WOULD**  
7 **IT BE UNUSUAL TO INCREASE THE LAUF FACTOR OF GCR**  
8 **CUSTOMERS AND CHARGE THE LG CUSTOMER FOR THE**  
9 **ACTUAL LAUF ASSOCIATED WITH SERVING THIS CUSTOMER?**

10 A. No. It is not uncommon to differentiate the LAUF factor based on actual experience.  
11

12 **V. CAPACITY PLANNING AND MANAGEMENT**

13 **Q. HOW DOES A GAS UTILITY SUCH AS DELMARVA TYPICALLY**  
14 **DETERMINE THE AMOUNT OF PIPELINE CAPACITY WHICH IT**  
15 **SHOULD RESERVE, OR MAINTAIN?**

16 A. A gas utility such as Delmarva would typically reserve pipeline capacity sufficient to  
17 meet the design peak day demands of its firm retail sales customers. Design peak day  
18 is an extremely cold day which a gas utility selects and utilizes for capacity planning  
19 purposes. The design peak day used by Delmarva for capacity planning purposes is a  
20 day with an average temperature of 0°F.

21 **Q. HOW DOES THE AMOUNT OF CAPACITY RESERVED BY**  
22 **DELMARVA, OR ITS CAPACITY ENTITLEMENTS, COMPARE TO**  
23 **THE EXPECTED DESIGN PEAK DAY DEMANDS OF ITS SALES**  
24 **CUSTOMERS?**

1 A. A comparison of Delmarva's capacity entitlements and the expected design peak day  
2 demands of its sales customers for the current year and the next five years is shown in  
3 Table 1. The difference between a gas utility's capacity entitlements and the  
4 expected design peak day demands of its sales customers is generally referred to as a  
5 reserve margin.  
6

<b>Table 1</b> <b>Comparison of Capacity Entitlements and</b> <b>Design Peak Day Demands</b> <b>(Mcf)</b>				
<b>Winter Season</b>	<b>Demand</b>	<b>Capacity</b>	<b>Reserve Margin</b>	
			<b>Quantity</b>	<b>Percent</b>
2012 - 2013	170,448	190,775	20,327	11.93
2013 - 2014	170,928	185,085	14,157	8.28
2014 - 2015	172,107	183,485	11,378	6.61
2015 - 2016	173,388	183,485	10,097	5.82
2016 - 2017	174,600	183,485	8,885	5.09
2017 - 2018	175,531	183,485	7,954	4.53

7

8 **Q. DID YOU REVIEW DELMARVA'S DESIGN PEAK DAY**  
9 **FORECASTS AND DID YOU FIND THE FORECASTS**  
10 **REASONABLE?**

11 A. Yes. The Company used a linear regression analysis of daily firm sales (sendout)  
12 from the winter of 2011-2012 on days that the average temperature was below 35°F  
13 to develop its design peak day forecast for the winter of 2012-2013. The forecasts for  
14 winter seasons beyond 2012-2013 reflect increases in the number of customers  
15 served. The winter of 2011-2012 was much warmer-than-normal and there were only  
16 eight days on which the average temperature was below 35°F. This lack of data is a  
17 concern, however, as shown in Table 2 below, the linear regression predictive  
18 equation developed from data from the winter of 2011-2012 is similar to the  
19 predictive equations developed from the two prior years. In the predictive equations

1 presented in Table 2, “Y” represents the expected demand of sales customers and “x”  
2 represents the average daily temperature. Based on the predictive equation from the  
3 winter of 2011-2012 at the Company’s design peak day of 0°, the expected demands  
4 of sales customers would be 174,206 Dth.  
5

<b>Table 2</b> <b>Design Peak Day Predictive Equations</b> <b>(Dth)</b>	
<b>Winter Season</b>	<b>Equation</b>
2011 - 2012	$Y = -2767.6x + 174,206$
2010 - 2011	$Y = -2672.2x + 174,724$
2009 - 2010	$Y = -2670.8x + 173,343$

6

7 **Q. IS THE RESERVE MARGIN MAINTAINED BY DELMARVA**  
8 **REASONABLE?**

9 A. For the winter of 2013-2014, Delmarva will be reducing its reserve margin by  
10 5,690 Mcf by reducing its Columbia FSS/SST entitlements. This will reduce  
11 Delmarva’s reserve margin to 8.28 percent. For the winter of 2014-2015, Delmarva  
12 anticipates eliminating its Transco PS-3 contract which will further reduce its reserve  
13 margin by 1,600 Mcf to 11,378 Mcf, or 6.61 percent. Delmarva maintains a reserve  
14 margin to accommodate future customer growth, and the reserve margin can be used  
15 to serve loads in excess of projected design peak day demands. In previous GCR  
16 proceedings, Staff has generally maintained that Delmarva’s reserve margin should  
17 be limited to 5 percent.

18 During the period January 22<sup>nd</sup> through 26<sup>th</sup> of this year, a period of relatively  
19 low temperatures was experienced in Delmarva’s service territory. On January 24<sup>th</sup>,  
20 the observed average temperature was 20.6°F, and the actual demand of Delmarva’s  
21 firm sales customers on this day was 118,265 Mcf. The predictive equation

1 developed for Delmarva's design peak day forecast estimated that demands on this  
2 day would be 112,039 Mcf.<sup>1</sup> That is, actual firm sales were 6,226 Mcf higher than  
3 predicted by the Company's design peak day forecasting model. Given the potential  
4 for error in the Company's design peak day forecast, the reduction in its reserve  
5 margin to 6.61 percent, and based on the current usage characteristics of its  
6 customers, the additional 1.61 percent reserve margin in excess of 5 percent does not  
7 appear to be unreasonable.

8 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

9 A. Yes, it does.

W:\3459 - Delmarva\jdm\dirtest\Direct Delmarva Power & Light.doc

---

<sup>1</sup> -2767.6(20.6°F) - 174,206 = 117,193 Dth, converted to Mcf at 1.046 Dth to Mcf.